

**ABSTRACT OF THE DISCLOSURE**

Chemical and biological reactors, including microreactors, are provided. Exemplary reactors include a plurality of reactors operable in parallel, where each  
5 reactor has a small volume and, together, the reactors produce a large volume of product. Reaction systems can include mixing chambers, heating/dispersion units, reaction chambers, and separation units. Components of the reactors can be readily formed from a variety of materials. For example, they can be etched from silicon. Components are connectable to and separable from each other to form a variety of types of reactors, and  
10 the reactors can be attachable to and separable from each other to add significant flexibility in parallel and/or series reactor operation.